

REMARKS

The comments of the applicant below are each preceded by related comments of the examiner (in small, bold type).

3. Regarding Claim 1, Greenberger discloses a method of electroacoustical transducing comprising controlling audio electrical signals to be provided to a pair of electroacoustical transducers of an array to achieve directivity and acoustic volume characteristics that are varied with respect to a parameter associated with operation of the array, the controlling of the signals resulting in a change in the radiated acoustic power spectrum of the array as the characteristics are varied (Figs. 2-10, 13, 15-19, 21-22, and 26-29; column 1, lines 1-32; column 3, line 31 to column 4, line 24; column 37, lines 34-59; column 40, lines 5-48), and compensating for the change in the radiated acoustic power spectrum of the array (Figs. 2-10, 13, 15-19, 21-22, and 26-29; column 1, lines 1-32; column 3, line 31 to column 4, line 24; column 37, lines 34-59; column 40, lines 5-48; column 48, lines 41 to column 50, line 62; column 51, line 42 to column 52, line 15; column 58, line 39 to column 59, line 47).

Amended claim 1 requires controlling audio electrical signals to be provided to a pair of electroacoustical transducers of an array to achieve directivity and acoustic volume characteristics "as a function of at least one of a volume control or a detected signal level, to reduce cancellation of acoustic output signals from the pair of electroacoustical transducers." Greenberger did not describe and would not have made obvious this limitation. Greenberger described the effects on the sound field as the directional signal and the non-directional signal are varied.

"The effect that occurs when the directional signal limits before the non-directional signal is that the spaciousness of the sound field is gradually reduced ... It is also possible that the sum channel could limit before the difference channel. The effect here would be a modulation of the spaciousness of the array as before, but in this case the spaciousness would increase at high signal levels as the sum signal limits ... It is possible to make a further modification to the system to allow the individual gain control elements to be independent up until a certain amount of relative gain reduction has occurred. After this threshold, the two gain elements can be tied together so that no additional relative gain differences in excess of this set threshold are possible." (col. 52, lines 43-61).

Greenberger did not describe and would not have made obvious "controlling audio electrical signals ... to achieve directivity and acoustic volume characteristics as a function of at least one of a volume control or a detected signal level."

- 4. Regarding Claim 2, Greenberger discloses...
- 4. Regarding Claim 2, Greenberger discloses...
- 5. Regarding Claim 3, Greenberger discloses...
- 6. Regarding Claim 4, Greenberger discloses...
- 7. Regarding Claim 5, Greenberger discloses...
- 8. Regarding Claim 6, Greenberger discloses...
- 9. Regarding Claim 7, Greenberger discloses...
- 10. Regarding Claim 8, Greenberger discloses...
- 11. Regarding Claim 9, Greenberger discloses...
- 12. Regarding Claim 10, Greenberger discloses...

Dependent claims 2-10 are patentable for at least the same reasons as claim 1.

13. Regarding Claim 11, Greenberger discloses an electroacoustical transducing apparatus comprising an input terminal to receive an input audio electrical signal (Figs. 2-10, 13, 15-19, 21-22, and 26-29), and a plurality of electroacoustical transducers in an array (Figs. 2-10, 13, 15-19, 21-22, and 26-29) circuitry constructed and arranged to generate two related output audio electrical signals from the input audio signal coupled to said electroacoustical transducers of an array, and to achieve predefined directivity and acoustic volume characteristics that are varied with respect to a parameter associated with operation of the array and to compensate for a change in acoustic power spectrum of the array that results from the controlling of the signals (Figs. 2-10, 13, 15-19, 21-22, and 26-29; column 1, lines 1-32; column 3, line 31 to column 4, line 24; column 37, lines 34-59; column 40, lines 5-48; column 48, lines 41 to column 50, line 62; column 51, line 42 to column 52, line 15; column 55, lines 22-65; column 56, lines 13-23; column 58, line 39 to column 59, line 47).

Amended claim 11 is patentable for at least similar reasons as claim 1.

- 14. Regarding Claim 12, Greenberger discloses...
- 15. Regarding Claim 13, Greenberger discloses...
- 16. Regarding Claim 14, Greenberger discloses...
- 20. Regarding Claim 20, Greenberger discloses...

Dependent claims 12-14, 20 are patentable for at least the same reasons as claim 11.

17. Regarding Claim 15, Greenberger discloses an electroacoustical transducer array comprising, a source of related electrical signal components (Figs. 2-10, 13, 15-19, 21-22, and 26-29) a plurality of electroacoustical transducers driven respectively by said related electrical signal components (Figs. 2-10, 13, 15-19, 21-22, and 26-29), an input terminal to receive an input audio electrical signal (Figs. 2-10, 13, 15-19, 21-22, and 26-29), and circuitry constructed and arranged to generate two related output audio electrical signals coupled to said electroacoustical transducers of an array, to control the two related output signals to achieve predefined directivity and acoustic volume characteristics that are varied with respect to a parameter associated with operation of the array, and to compensate for a

change in radiated acoustic power spectrum of the array that results from the controlling of the signals (Figs. 2-10, 13, 15-19, 21-22, and 26-29; column 1, lines 1-32; column 3, line 31 to column 4, line 24; column 37, lines 34-59; column 40, lines 5-48; column 48, lines 41 to column 50, line 62; column 51, line 42 to column 52, line 15; column 55, lines 22-65; column 56, lines 13-23; column 58, line 39 to column 59, line 47).

Amended claim 15 is patentable for at least similar reasons as claim 1.

- 18. Regarding Claim 16, Greenberger discloses...
- 19. Regarding Claim 17, Greenberger discloses ...
- 20. Regarding Claim 18, Greenberger discloses ...

Dependent claims 16-18 are patentable for at least the same reasons as claim 15.

21. Regarding Claim 19, Greenberger discloses a sound system comprising, a source of related electrical signal components (Figs. 2-10, 13, 15-19, 21-22, and 26-29), a pair of electroacoustical transducer arrays, each of the arrays (Figs. 2-10, 13, 15-19, 21-22, and 26-29) comprising a plurality of electroacoustical transducers driven respectively by said related electrical signal components (Figs. 2-10, 13, 15-19, 21-22, and 26-29), and an input terminal to receive an input audio electrical signal (Figs. 2-10, 13, 15-19, 21-22, and 26-29); and circuitry constructed and arranged to generate two related output audio electrical signals coupled to said electroacoustical transducers of an array, to control the two output signals to achieve predefined directivity and acoustic volume characteristics that are varied with respect to a parameter associated with operation of the array, and to compensate for a change in acoustic power spectrum of the array that results from the controlling of the signals (Figs. 2-10, 13, 15-19, 21-22, and 26-29; column 1, lines 1-32; column 3, line 31 to column 4, line 24; column 37, lines 34-59; column 40, lines 5-48; column 48, lines 41 to column 50, line 62; column 51, line 42 to column 52, line 15; column 55, lines 22-65; column 56, lines 13-23; column 58, line 39 to column 59, line 47).

Amended claim 19 is patentable for at least similar reasons as claim 1.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim


does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply any other charges or credits to deposit account 06-1050, order 02103-556001.

Respectfully submitted,

Date: _____

7/11/7


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